

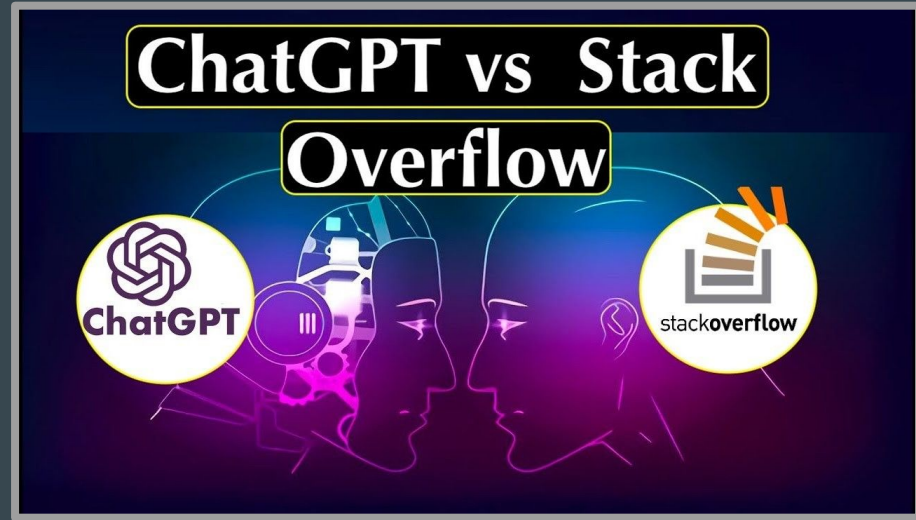
IDE Search Engine

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Problem to Solve

- Problem Statement: A programmer can get stuck on a line of code and not know how to fix the problem.
- Google, Stack Overflow, ChatGPT for answers
 - Won't always give the exact answer you're looking for
 - Sometimes even the wrong answer
 - Solutions might not be comprehensible for beginner or intermediate coders
- Annoying having multiple tabs open



Solution

- Search engine inside the IDE
 - Similar to Grammarly but for coding
- Scans your class to detect how to properly implement what you want
- Search any question you want about programming
 - Simple definitions
 - Complex programs
- Returns a solution with a brief summary of why and how it solves the problem

Related Work

- Stack Overflow [1]
 - Users can ask questions and post code snippets
 - People can respond in a thread format with possible code solutions
- ChatGPT [2]
 - AI software
 - Can help explain how certain code works
 - Useful when trying to understand terminology
 - Helps debugging code
- Down Sides
 - Would be using over people's work
 - Doesn't help you learn
 - Answers might not be correct
 - Multiple tabs

Example

Use Case: programmer gets stuck on a line of code

1. Preconditions

- a. Programmer runs into an error in their code

2. Main Flow

- a. The search engine will scan the project and detect what the user is trying to do [S1]. The search engine will then provide a code snippet to fix the problem [S2]. The programmer will either accept the code snippet, or decline it and search a question on the internet, via the IDE search engine, for an answer [S3].

3. Subflows

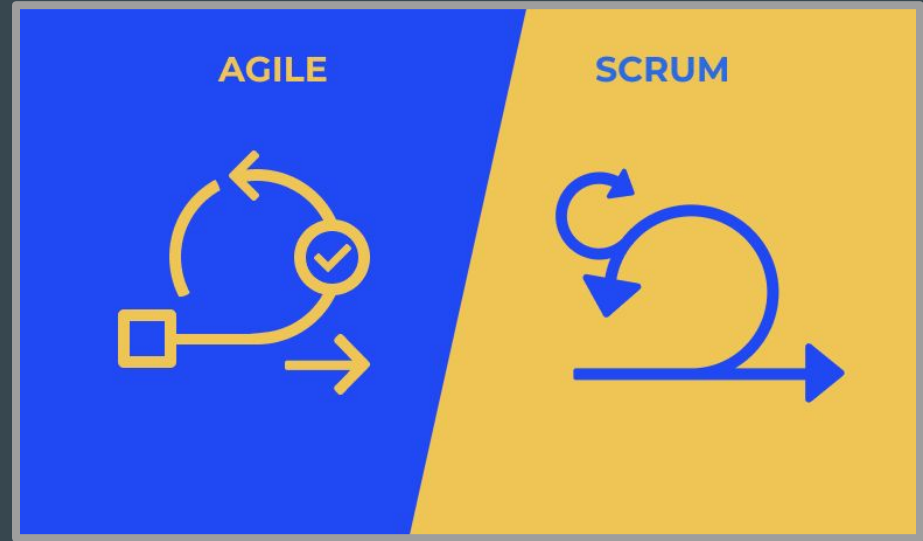
- a. [S1] Search engine scans project → detects what the user is trying to accomplish
- b. [S2] Search engine provides code snippet solution
- c. [S3] User accepts solution or browses internet via IDE search engine

4. Alternative Flows

- a. Programmer runs into no errors, and doesn't need to use the search engine

Software Engineering Process

- Agile approach
 - Complex goal in mind
- Scrum meetings
 - Good for collaboration
 - Helps team stay in accordance with design and implementation
 - In person / online
 - Ensures work is incremental



Citations

[1] Empowering the world to develop technology through collective knowledge. Stack Overflow. (n.d.). <https://stackoverflow.co/>

[2] What is CHATGPT and why does it matter? here's what you need to know. ZDNET. (n.d.).

<https://www.zdnet.com/article/what-is-chatgpt-andwhy-does-it-matter-heres-everything-you-need-toknow/>